

ABSTRACT OF THE DISCLOSURE

To provide an interference-signal removing apparatus for removing narrow-band interference signals from input signals including wide-band desired signals and the narrow-band interference signals, which suppresses that even desired signals are removed. The following are included: extraction means 11 for extracting interference signals from input signals, removal means 12 for removing extracted interference signals from input signals, extraction control means 13 for controlling extraction of interference signals by the extraction means 11 in accordance with the removal result, and extraction-amount suppression means 14 for suppressing the interference signal amount to be extracted in accordance with input signals, for example, in which the extraction control means 13 computes a control vector constituted of a plurality of digital control values for controlling extraction of interference signals and outputs the control vector to the extraction means 11, the extraction means 11 extracts the inner product of an input vector constituted of a plurality of input signal values and the control vector as an interference signal, and the extraction-amount suppression means 14 restricts effective word lengths of digital control values constituting the control vector.